AMENDMENTS TO THE CLAIMS

A complete listing of all claims and their current status is presented below.

1-51. (Canceled)

52. (Previously Presented) A rotational medical device comprising:

an elongate flexible tubular body having a proximal end and a distal end;

a rotatable element extending through the body;

a rotatable tip at the distal end of the body and connected to the rotatable element; and

the rotatable tip further comprising a radially inwardly extending annular recess.

53. (Currently Amended) A rotational medical device as in claim 52 ~~20~~, wherein the tubular body further comprises a plurality of radially inwardly extending retaining members for rotatably engaging the annular recess.

54. (New) A rotational medical device comprising an elongate flexible tubular body having a proximal end and a distal end, a vacuum source being coupled to said proximal end of said elongate flexible tubular body, a rotatable element extending through said elongate flexible tubular body, a rotatable tip being connected to said rotatable element at said distal end of said elongate flexible tubular body, said rotatable tip having a proximal end, a distal end and a rotational axis extending through said proximal end and said distal end; said rotatable tip being rotatable about said rotational axis relative to said elongate flexible tubular body, and a control being disposed at said proximal end of said elongate flexible tubular body.

55. (New) The device of Claim 54 further comprising a guidewire lumen extending through said rotatable element.

56. (New) The device of Claim 55, wherein said guidewire lumen also extends through said rotatable tip.

57. (New) The device of Claim 54 further comprising an indicator that is in electrical communication with said control, said indicator being adapted to indicate resistance to rotation of either said rotatable element or said rotatable tip.

58. (New) The device of Claim 54, wherein said control is mounted on a handle that is sized and configured for single hand operation of said rotatable tip and application of said vacuum source through said device.

59. (New) The device of Claim 54 further comprising an axially extending annular space being defined between said elongated flexible tubular body and said rotatable element.

60. (New) The device of Claim 59, wherein said annular space defines at least a portion of an aspiration lumen.

61. (New) The device of Claim 60, wherein said elongated flexible tubular body has a first cross sectional area and said annular space has a second cross sectional area such that said second cross sectional area is at least about 35% of said first cross sectional area.

62. (New) The device of Claim 54, wherein said rotatable tip comprises a helical thread.

63. (New) The device of Claim 62, wherein said rotatable tip further comprises at least one radially outward extending cutter positioned on said proximal end of said rotatable tip.

64. (New) A rotational medical device comprising an elongate flexible tubular body having a proximal end and a distal end, a housing being secured to said distal end or said elongate flexible tubular body, a vacuum source being coupled to said proximal end of said elongate flexible tubular body, a rotatable element extending through said elongate flexible tubular body, a rotatable tip being connected to a distal end of said rotatable element and being disposed at least partially within said housing, said rotatable tip having a proximal end, a distal end and a rotational axis extending through said proximal end and said distal end; and said rotatable tip being rotatable about said rotational axis relative to said elongate flexible tubular body.

65. (New) The device of Claim 64, wherein said rotatable tip is captured within said housing.

66. (New) The device of Claim 65, wherein said housing comprises two pieces that enclose said rotatable tip.

67. (New) The device of Claim 64, further comprising a guidewire lumen extending through said rotatable element.

68. (New) The device of Claim 67, wherein said guidewire lumen also extends through said rotatable tip.

69. (New) The device of Claim 64, further comprising a control that is adapted to control rotation of said rotatable element or said rotatable tip and an indicator that is in electrical

communication with said control, said indicator being adapted to indicate resistance to rotation of either said rotatable element or said rotatable tip.

70. (New) The device of Claim 64, wherein a control is mounted on a handle that is sized and configured for single hand operation of said rotatable tip and application of said vacuum source through said device.

71. (New) The device of Claim 64, further comprising an axially extending annular space being defined between said elongated flexible tubular body and said rotatable element.

72. (New) The device of Claim 71, wherein said annular space defines at least a portion of an aspiration lumen.

73. (New) The device of Claim 72, wherein said elongated flexible tubular body has a first cross sectional area and said annular space has a second cross sectional area such that said second cross sectional area is at least about 35% of said first cross sectional area.

74. (New) The device of Claim 64, wherein said rotatable tip comprises a helical thread.

75. (New) The device of Claim 74, wherein said rotatable tip further comprises at least one radially outward extending cutter positioned on said proximal end of said rotatable tip.

76. (New) The device of Claim 64, wherein the rotatable tip is at least partially serrated.